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MECHANIZED RIFLE TROOP (M113)

Monthly Test Report Number 6
1-31 July 1963

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ARMY CONCEPT TEAM IN VIETNAM
APO 143, San Francisco, California.

ACTIV-GM

11 October 1963

SUBJECT: Monthly Test Report Number 6 -- Mechanized Rifle Troop (M113) (1-31 July 1963) (U)

TO: See Distribution

1. (C) General

Missions performed by mechanized rifle troops during the reporting period were generally static in nature and consisted primarily of route and area security. No instance of insurgent attacks on M113 secured areas was noted during the period covered by this report. Increased activity in armor operations was reported only in the Delta area of IV Corps.

A description of test units, discussion of test objectives, and operational plan of test is contained in previous monthly test reports.

The previously reported estimate of 95 percent test completion remains unchanged.

2. (C) Observation

The absence of aggressive insurgent activity in areas where M113 elements are employed as security forces tends to support previous indications of insurgent avoidance of contact with M113 troops (see paragraph 3c, Monthly Test Report Number 2) and points up the area-denial role of the M113 under a counterinsurgency environment. This observation reflects acknowledgement of the insurgent capability of taking offensive action at the time and location of his own choosing.

3. (U) Content and format

In addition to the narrative of M113 operations in KIEN PHONG Province (Incl 1) this report contains a discussion of logistical problems encountered during the reporting period (Incl 2) and a status report on the testing of certain items of equipment being employed by M113s in Vietnam (Incl 3).

4. (C) References

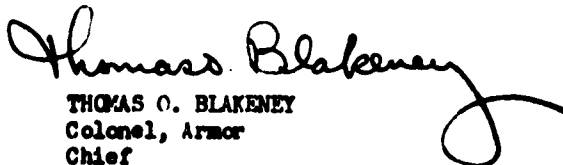
a. DA letter, AGAM-P (R) 381 (31 Oct 62) DCSOPS, subject: "Army Troop Test Program in Vietnam (U)," 6 November 1962, as amended.

b. ACTIV letter (to CGUSACDC), subject: "Plan of test, Mechanized Rifle Troop (M113)," 28 November 1962.

c. ACTIV letter (to CINCPAC through COMUSMACV), subject: "Summary of Test Plan for Mechanized Rifle Troop (M113) (U)," 3 December 1962.

d. Monthly Test Reports Numbers 1 through 5, Mechanized Rifle Troop (M113) (U), Army Concept Team in Vietnam.

3 Incl
as


THOMAS O. BLAKENEY
Colonel, Armor
Chief

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Monthly Test Report Number 6 -- Mechanized Rifle Troop (M113)

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M113 OPERATIONS IN KIEN PHONG

1. (C) GENERAL

During the period 26 June - 6 July 1963, the 4th Mechanized Rifle Troop, 2d Armored Cavalry Squadron participated in four operations in Kien Phong Province. Operations from 27 June through 3 July were under the control of the province chief. An operation on 5 July was controlled by 7th Division. Appendixes 1 and 2 are schematic map diagrams of these operations. Appendix 3 consists of photographs taken on the missions.

2. (C) OPERATIONS 26 - 28 June

The commanding officer, 4th Troop 2d Squadron received a movement order on the afternoon of 26 June. At 1730 that evening, the troop began loading 12 M113s on two LSUs. Loading was completed at 1810. After loading, the LSUs proceeded North on the Mekong River. As the LSUs could carry only six M113s each, three vehicles remained at home station. Of these three, only one could have been left had more transportation been available.

The commanding officer, 4th Troop, 2d Squadron had not yet received an operations order, but had been instructed to pick it up at Cao Lanh at 2100 that night. Cao Lanh was approximately 90 km up river from My Tho, and the maximum speed of the LSU is 10 km/hr. It was impossible to meet this time schedule. During the night, one of the LSUs developed engine trouble and had to proceed on one engine. As a result, at 0700 27 June, the LD time, the company was still 30 km away from the LD, proceeding at five km/hr. At 1030 on 27 June the troop reached Cao Lanh. Here it was learned that the planned operation had been cancelled due to the non-availability of the M113s.

At 1100 a report was received at the CP that a T-28 aircraft had been strafing a hard-core VC unit of about 40 men and had been shot down. The troop was given the mission of proceeding to the area to secure the wreckage. The troop departed Cao Lanh at 1110 and landed at Binh Thanh at 1400. Unloading operations of Binh Thanh required only 10 minutes once the LSUs were in position. The flat, mostly dry terrain near the river allowed rapid movement toward the objective area. Due to the excellent terrain and high speed of the M113s, nine VC, who had been caught in the open and run down, were captured. The time was 1430. The troop reached the plane-crash site at 1530 after crossing three canals. The plane had crashed in a somewhat marshy area that had, unlike the excellent terrain to the North and West, many canals and inundated areas. The order was received to secure the crash site until an Air Force EOD Team could police up 24 25-lb frag bombs that were strewn over the area. The troop remained at this location overnight.

On 28 June the troop helped the EOD team locate the ordnance, loaded the wreckage on the carriers, and at 1530 moved out en route to the LSUs. En route, three VC were killed and two more captured. The total VC killed in this operation was three, the total captured 13. No weapons were captured. The troop traveled approximately 70 km.

3. (C) DESCRIPTION OF OPERATION 29 June (DUC THANH 32/KD)

This operation began when the troop commander received the operation order at Cao Lanh at 1700 28 June. The troop was located at this time at Binh Thanh, approximately 35 km North of Cao Lanh. An order was transmitted to the troop executive officer to load the 12 M113s on the two LSUs located at Binh Thanh and proceed North on the Mekong River to

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the LD. At approximately 2400, the troop commander departed Cao Lanh by motor launch en route to Long Son, approximately five km South of the LD at 0650 29 June. The first LSU arrived at the LD and completed unloading operations at 0730. The second LSU, which had encountered engine trouble after leaving My Tho, arrived and completed unloading at 0820. The LD was crossed by the company at 0830.

The troop reached objective A1, cleared it with no contact, and then proceeded toward objective A2. Just before reaching objective A2, an OA-1 spotter aircraft reported the presence of several VC in the tall grassy terrain that dominated objective A2. It required about one hour to cross and recross the grassy area in an attempt to drive the VC out. They successfully eluded the search, apparently hiding in the dense vegetation. One of the attached Civil Guards was injured by a mine during this operation. Four civilians who had been held prisoner by the VC were found and liberated.

The troop did not proceed directly to objective A3 upon leaving A2, but went to the North, to within one km of the Cambodian border, before turning to the Southwest toward objective A3. As the troop began clearing the dense patches of woods in the Southern portion of A3, many signs of VC activity were noted, such as well-worn paths, lean-to-shelters, and a sampan. The Civil Guard company was, at this time, dismounted. Most of the foot troops were following the troop executive officer, who was on the right (North) controlling the seven rifle M113s and the maintenance M113s. The troop commander had his track, the three weapons M113s and a few Civil Guard riflemen with him on the left (South) side of the objective. As the troop approached the largest patch of woods in the area, two VC were observed running to the right (North). The executive officer ordered the M113s under his control to give pursuit. The two VC were captured. As a result of this action, the large patch of woods was by-passed to the North by the executive officer, his eight tracks, and the Civil Guard troops following him. In the meantime, the troop commander continued to move through the woods with his four M113s and approximately two squads of Civil Guard.

At 1150, after he had moved through about 100 meters of the woods, the troop commander heard small arms fire. Thinking that it was the civil guard firing, he stopped his advance and, unable to communicate otherwise, dismounted the track in an attempt to effect a cease fire. He realized that the rounds were enemy fire only after three rounds ricocheted off his M113. Being in dense vegetation and having limited fields of fire and extremely poor visibility, the troop commander elected to move forward out of the woods into the open fields. At this time, he called the executive officer and ordered him to move in and block to the West and North with three M113s and send the rest to block to the South and East. The troop sustained most of its losses by enemy fire during the initial movement through the enemy position and the reorganization around the objective area. The troop was under heavy automatic weapons fire while these actions were being accomplished.

By 1230 the troop commander had his company deployed so as to block all possible escape routes from the objective area. His next actions were to call in artillery, request an air strike, and to bring fire on the objective area with his organic weapons, including his 57mm recoilless rifle and 81mm mortars. An air evacuation point was set up at approximately 1300 but the VNAF H-34, located at the CP did not fly in. The first air evacuation was accomplished by a US Army UH-1B at 1640. The 155mm artillery fire was not only ineffective, but also endangered friendly troops. One round killed a civil guard and wounded two others. This inaccuracy was due mainly to the fact that the forward observer did not leave the

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M113. He was shooting azimuths with his compass from inside the track. Due to the extreme danger to his own troops, the troop commander requested that no more artillery be fired.

At 1330, in order to further develop the situation and determine the enemy's strength and disposition, the commander elected to assault the position with the M113-mounted flamethrower. This action helped pinpoint several locations. The commander by this time was able to determine that he was facing, on the south and west sides of the position, a determined and well dug-in enemy, capable of a high volume of automatic weapons fire. It was reasonable to assume that the enemy had no armor defeating capability since none had been employed, although ample opportunities had presented themselves. At this point the commander ordered an assault by the 3 M113s on the West end of the position. Two of these M113s had the cupola mounted cal .30 machine guns, and were capable of buttoning up completely and continuing to fire. Only these two carriers were used in the assault. The assault stopped about 10 meters short of the wood line when a grenade exploded about three meters in front of the lead M113. There was no reason for the M113 to stop, as the grenades were ineffective against the completely buttoned-up M113. The bogging down was probably due to the fact that the track commanders in this troop do not use the intercom capability to control the drivers. Consequently, when the track was buttoned up and moving, the track commander had little control of his vehicle and the driver, due to the lack of instructions, backed up after the grenade exploded.

At 1430 the commander decided to assault again from the South. In this assault he penetrated the objective area, threw many hand grenades and delivered a large volume of fire before returning to the original positions. The dug-in enemy countered with heavy automatic weapons fire and several accurately thrown grenades. One M113 sustained three direct hits, two on the top and one underneath. Only superficial damage was sustained to the carrier. However, the gunner was killed. These grenades were of the home-made, one-kilo variety.

By 1500, two T-28s had arrived, so the decision was made to hold the blocking positions and soften up the objective with air strikes. Between 1500 and 1730 there was a total of 16 air sorties. The ordnance expended consisted of napalm, rockets, 25-lb frag bombs, 250-lb bombs, 20mm cannon and 50 cal machine guns. The company commander attempted one more assault between air strikes, only to have the ARVN observer in the OA-1 spotter plane advise him to withdraw as he could see many VC in the objective area. He mistook the assaulting infantrymen for VC. At this point, the CP took control of the operation and would not allow the troop commander to launch any more assaults until they sent reinforcements. Although the troop commander advised the CP that he could now secure the objective, he was ordered to wait.

The reinforcements arrived at 1745. They consisted of an assortment of hamlet militia, SDC, and special forces strike force troops. The reinforcements were difficult to control and several times as they were approaching the objective area, they fired in the direction of the friendly troops. Fortunately, however, no one was hit. With the arrival of the additional troops, the CP now allowed the troop commander to launch his attack. He succeeded in clearing the objective by 1830. The reinforcements that had been sent did not leave the clearing and entered the wooded objective as ordered. They also had to be ordered to cease fire, as they were endangering the troops that were clearing the objective.

The after-action investigation disclosed that the VC unit had set up an L-shaped ambush oriented to the West and South, probably in

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anticipation of foot troops only. The total number of VC originally on the position was estimated at 30.

STATISTICAL SUMMARY - OPERATION OF 29 JUNE

VC killed - 25
VC captured - 3
ARVN KIA - 8
ARVN MIA - 17

Weapons captured - 5 automatic rifles (3 BAR, 1 BREN, 1 French 24 X 29), 1 Thompson submachine gun, 4 M-1 carbines, 1 M-1 Garand, 3 MAS 36, 2 homemade rifles, 1500 rounds of ammunition; assorted calibers, 5 one-kilo grenades were destroyed during the course of the skirmish.

It was estimated that approximately 2000 rounds of ammunition of various calibers were expended by the VC.

Favorable Comments on Operation of 29 June

- a. The Mechanized Troop Commander showed aggressiveness in sealing off the position and denying the enemy an escape route.
- b. Good use was made of the means available to the commander for the support of the operation, i.e.: 57mm recoilless rifle, 81mm mortars, and air strikes. He attempted to use artillery, but was unable to due to the danger to his own troops.

Unfavorable Comments on Operation of 29 June

- a. The bulk of the available troops chased two individual VC, while only a small force moved through a large and densely-wooded objective.
- b. The 155mm artillery fire, which could have helped greatly, was rendered ineffective due to improper actions of the forward observer.
- c. The CP was unable to keep abreast of the situation, located as it was, some distance from the action. Either the ground commander should have control, or the CP should be in a position to observe the action.
- d. The Mechanized Troop Commander, who was the ground commander, was unable to obtain timely response to orders issued to the attached Civil Guard company..
- e. The Civil Guard company was somewhat disorganized on several occasions. Emphasis should be placed on the actions of all subordinate leaders in controlling their men, and being responsive to orders.
- f. No attempt was made to police up the several thousand rounds of empty brass strewn over the battle area. These can easily be re-loaded by the VC.
- g. It would have been very easy to leave a stay-behind force, or at least a demolitions ambush for the VC, who were certain to come into the area to investigate the action. Approximately 100 VC were reported in this area five hours after the friendly force withdrew.

4. (C) DESCRIPTION OF OPERATION 2 JULY

The operations plan for 2 July was identical to that of 27 June. Ten M113s unloaded from LSUs and crossed the LD at 0600, one hour late. Two M113s remained on the LSUs. One had dead batteries; the other had broken transmission-mounting bolts.

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At 0630, an OA-1 spotter aircraft sighted 30 VC moving to the South and East. The troop was in hot pursuit when stopped by two large canals approximately 150 meters apart. The time consumed in crossing these two canals allowed most of the VC to scatter and hide. Only two of the VC were killed and three captured. They had no weapons.

The troop continued on to the assigned objectives with no further contact. As the troop proceeded to the South and East, the canals became more numerous, and progress was slowed considerably by them. After the last objective had been cleared, the troop was ordered to move to the South to the main canal (see map) and await further orders.

The troop traveled 30 km on this operation. Class I and III supplies were flown in by two UH-1B aircraft.

5. (C) DESCRIPTION OF OPERATIONS 3, 4, and 5 July (DUC THONG 34/TG)

The troop remained in the assembly area occupied on the evening of 2 July until 1400, 3 July. At this time, it was ordered to move to My An. It arrived at My An at 1800 on 3 July.

On 4 July, a big celebration was held in My An with the troop and all of its equipment on display. The activities included speeches, food, drinks, and demonstration rides on the M113s for the local people.

At 1400, an OA-1 aircraft dropped 7th Division Operations Order DUC THANG 34/TG to the troop. This order gave the troop an LD 6 km away, across two major canals, at 0700, 5 July. The troop was not moved to a better vantage point, but remained in My An the night of the 4th of July. The commander did, however, send one M113 to the far bank of the first major canal that evening to assist the troop in exiting the next morning.

The troop departed My An at 0620 on 5 July en route to the LD. At 1015, the troop crossed the LD and proceeded toward the first objective. At 1045 the OA-1 spotter aircraft reported 30 VC moving diagonally across the front of the troop at 4 km distance. By 1100 the troop had closed to within 1 km of the VC, who were now stopped and hidden. The troop had left the dismounted ARVN infantry far to the rear during the rapid advance, and the commander decided not to move into the thick woods where the VC were located until the infantry joined him. At 1110, the OA-1 reported that the VC were leaving the position and scattering out. The infantry joined at 1200.

When the woods were finally cleared, no VC were found. However, a grenade manufacturing installation was found. There were 100 empty fragmentation grenade casings, a quantity of scrap metal, and a number of tools, such as moulds, vises, drills, etc., captured. A large pot of molten metal was found with the fire still burning under it. At 1515, another cache of scrap metal was found. All of these installations were mined and booby trapped.

The troop proceeded to position B with no further incident, arriving at 1815. At this point the CP ordered the commander to move to My Long. The road to My Long lay 4 km to the Southwest of position B. However, due to the difficulty in crossing one major canal, and five smaller ones, four hours were required to traverse the four km. The troop closed into My Long at 1100. The troop moved from My Long en route to My Tho by road at 1500 on 6 July. It closed into My Tho at 1830.

6. (C) STATISTICAL SUMMARY - 10 DAY TOTAL

VC killed - 30
VC captured - 18

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Weapons captured - 5 ARs, 4 carbines, 1 M-1, 1 Thompson Submachine Gun, 3 MAS 36, 2 homemade.

ARVN KIA - 8

ARVN WIA - 19

Total km traveled - 250

Number of M113s inoperative at the end of period covered by report - 1.

7. (C) CONCLUSIONS

a. The terrain in Kien Phong Province adjacent to the Cambodian border is ideal for the employment of armor, including light tanks.

b. The M113s are successful in flushing VC that would otherwise remain hidden. When this occurs in terrain such as that found in the southern portion of Kien Phong, where many canals exist, airmobile blocking forces or armed helicopters could be successfully employed to destroy the fleeing enemy forces.

c. When the command post takes control of an engagement, it should be in a position to observe. An airborne CP or an M113 could fulfill this requirement.

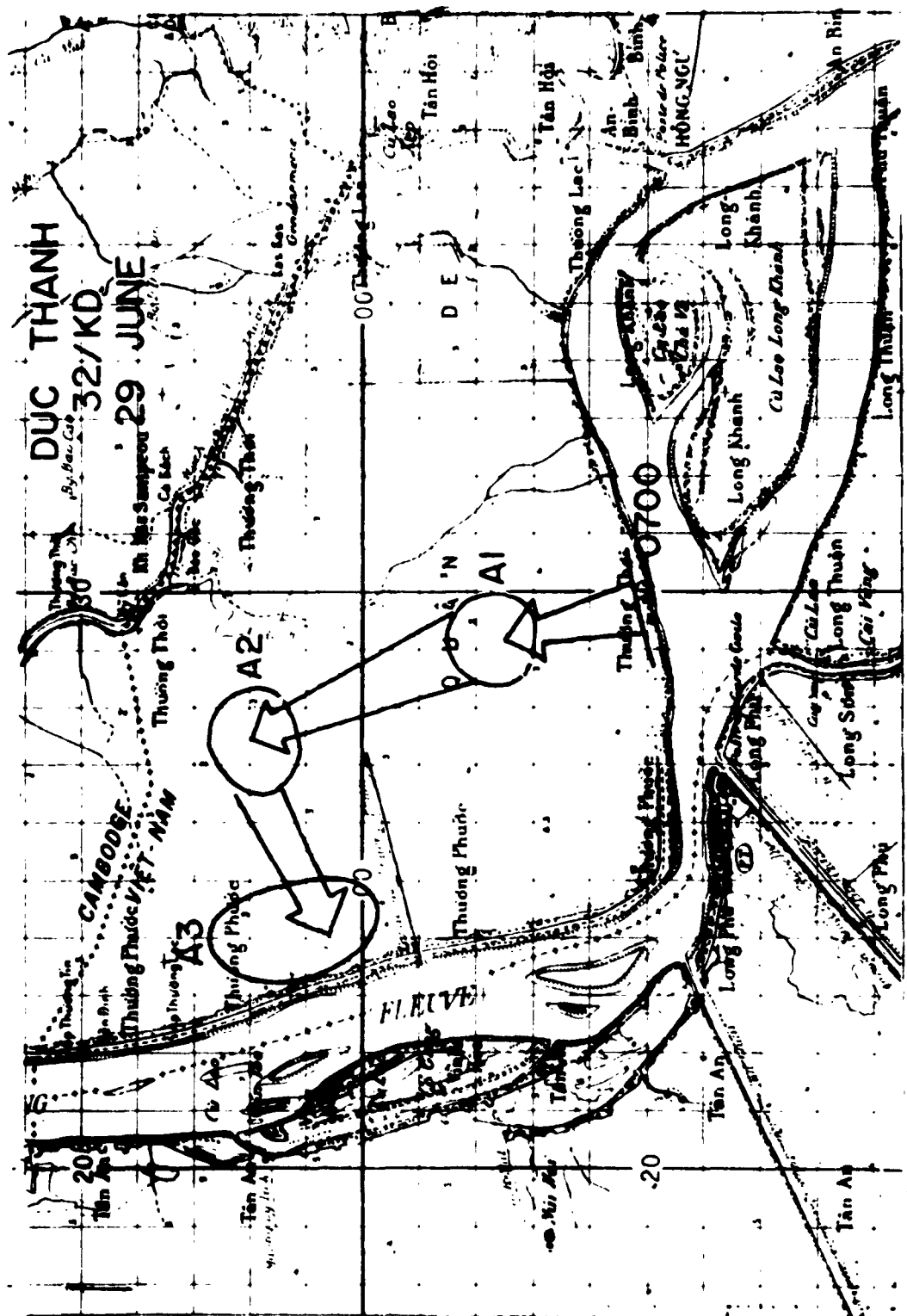
d. The M113 is capable of withstanding hard usage over an extended period. Although only first echelon maintenance was performed, 11 M113s out of the original 12 were in operating condition after 10 days of extended hard operations. All of these M113s have been operated in excess of 5000 miles.

e. Light tactical bridging that could be emplaced quickly to cross canals would allow the M113s to close rapidly with enemy forces that are fleeing.

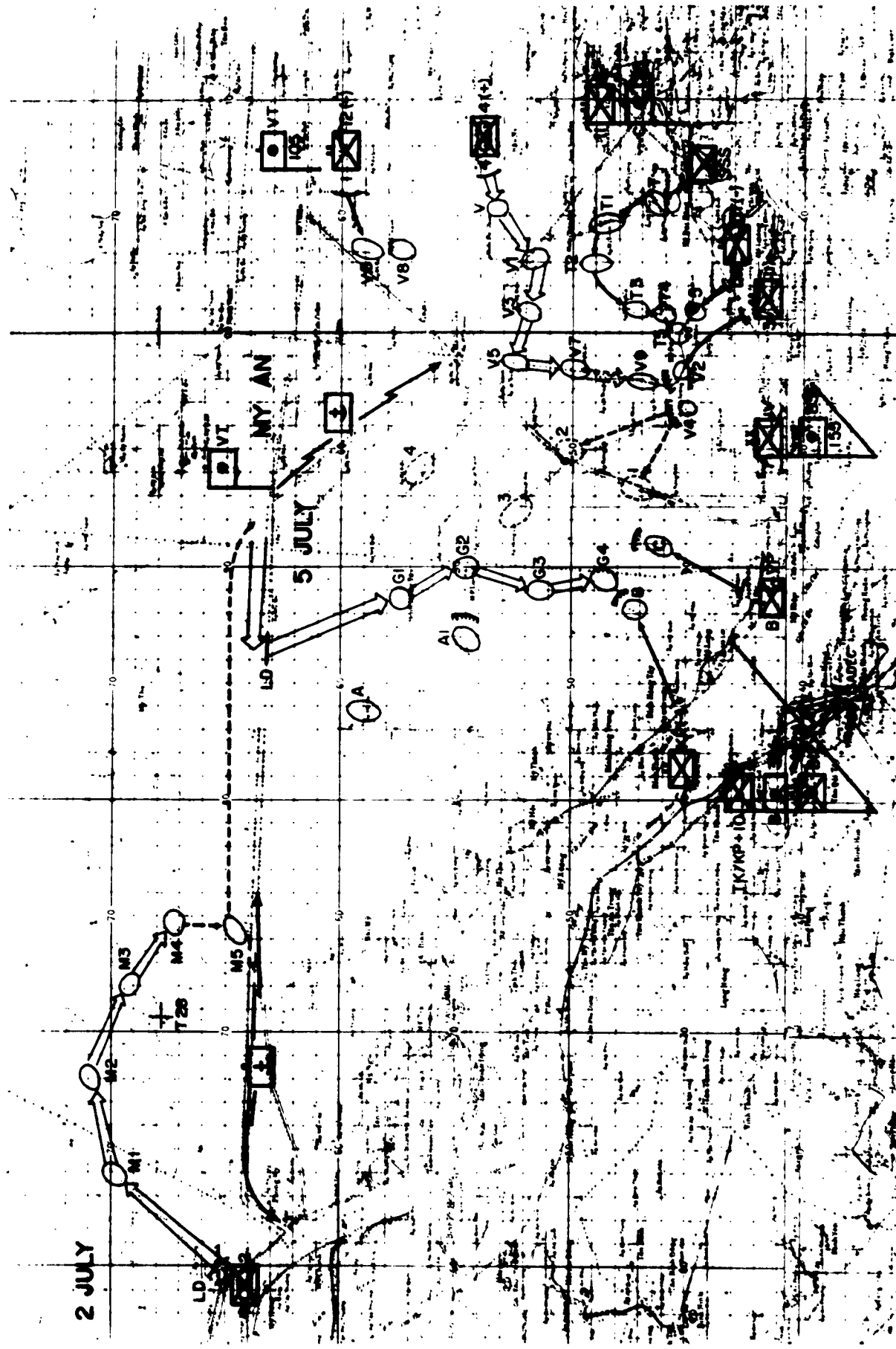
APPENDIXES 1 AND 2
MAP DIAGRAMS OF
M113 OPERATIONS IN KIEN PHONG PROVINCE

Appendixes 1 & 2
to
Incl 1

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APPENDIX 3
PHOTOGRAPHS OF
M113 OPERATIONS IN KIEN PHONG PROVINCE

Appendix 3
to
Incl 1



FIGURE 1

(U) AIR VIEW OF USS UNLOADING A/Cs



FIGURE 2

(U) AIR VIEW OF USS UNLOADING A/Cs

Appendix 3
to
Incl 1

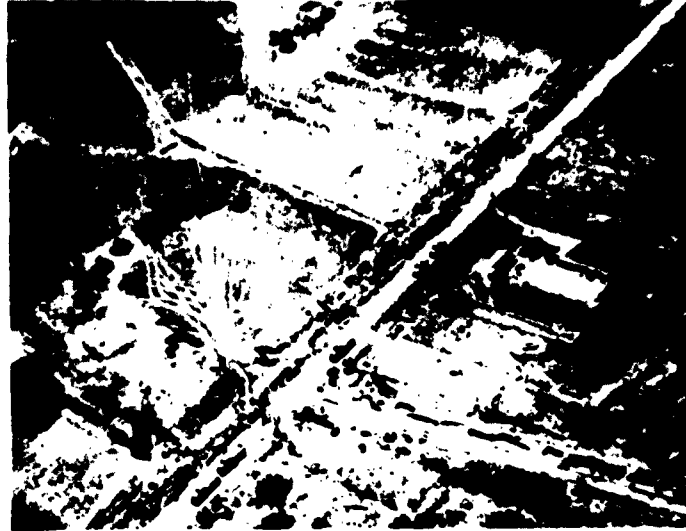


FIGURE 3

(U) : 113s WAITING TO MOVE NT



FIGURE 4

(U) ON OBJECTIVE A2. GRASS IS ABOUT 8 FEET TALL

Appendix 3
to
Incl 1



FIGURE 5

(U) TROOPS ON LINE TRYING TO PUSH IN FART TAIL GRASS



FIGURE 6

(U) TROOPS STANDING ON TOP OF M113s WITH 4 CIVILIANS WHO WERE LIBERATED

Appendix 3
to
Incl 1



FIGURE 7

(U) AT-6 RELEASED NAIAIN PAKY ON EMPTY LOCATION



FIGURE 8

(U) NAIAIN STRIKING EMPTY LOCATION

Appendix 3
to
Incl 1



FIGURE 9

(U) M113-MOUNTED FLAMETHROWER IS USED ON THE ENEMY POSITION (VIEW FROM OPPOSITE SIDE OF POSITION)



FIGURE 10

(U) FIRST ASSAULT WITH CUPOLA-EQUIPPED M113s. FIRST CARRIER ADVANCED ONLY 10 METERS MORE AFTER THIS PHOTO WAS TAKEN.



FIGURE 11
 (U) SECOND ASSAULT WITH CUPOLA-EQUIPPED M113S. THE TWO CUPOLA-EQUIPPED M113S AND THE M113 SEEN IN THE FOREGROUND ADVANCED 150 METERS INTO THIS WOOD LINE BEFORE BEING ORDERED OUT.



FIGURE 12
 (U) M113 IN DENSE VEGETATION

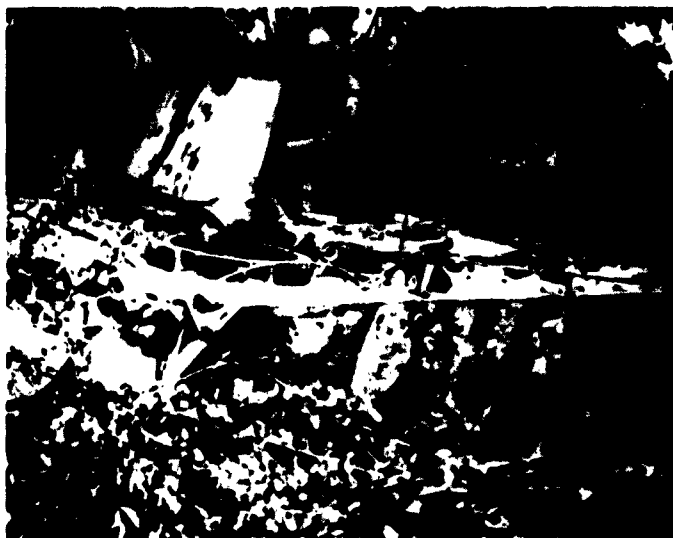


FIGURE 13
(U) M113 ON FINAL ASSAULT

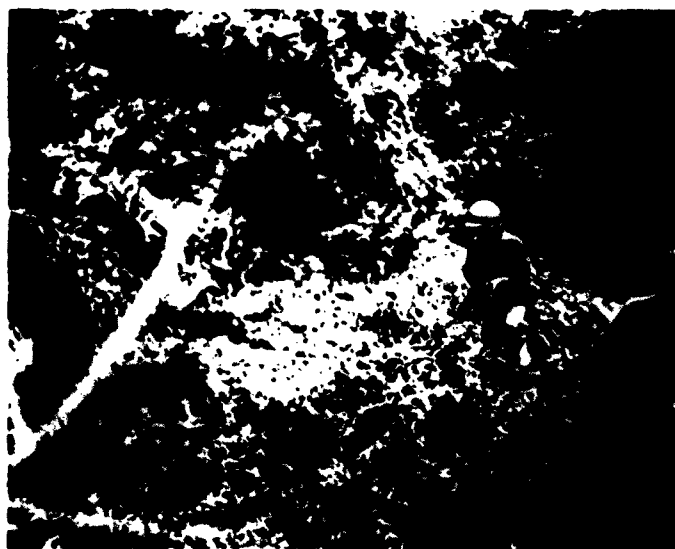


FIGURE 14
(U) DISMOUNTED MECHANIZED INFANTRYMEN MOPPING UP OBJECTIVE



FIGURE 15

(U) DISMOUNTED RECALLED THE HISTORY

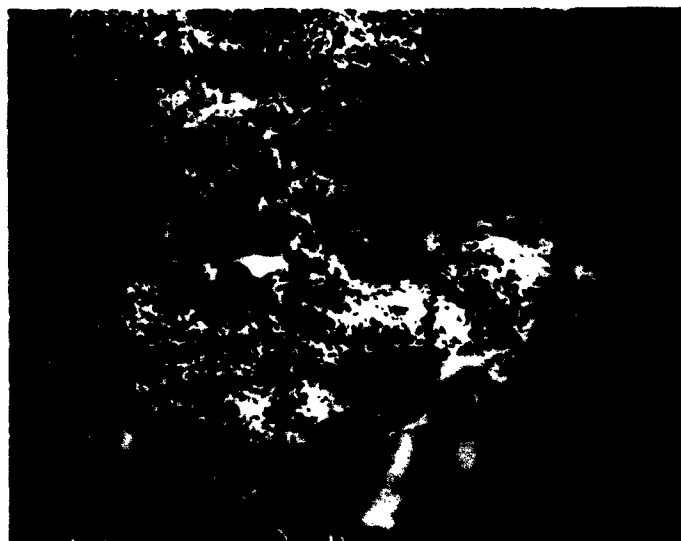


FIGURE 16

(U) VC WAS SHOT BY AN INFANTRYMAN WHILE ON A HILL FROM WHICH THIS PICTURE WAS TAKEN. VC WAS MOVING FAST. VC WAS EXTREMELY WELL CAMOUFLAGED. ALTHOUGH ARMED WITH A CARBINE HE HELD HIS FIRE, EVIDENTLY HOPEING TO BE UNNOTICED.



FIGURE 17

(U) RESULTS OF A HAND GRENADE EXPLOSION IN A HOLE
CONTAINING SEVERAL ONE-KILO GRENADES AND TWO VC



FIGURE 18

(U) ADDING UP THE SCORE



FIGURE 19

(U) VIEW OF THE WALL AFTER HITTING THE GROUND

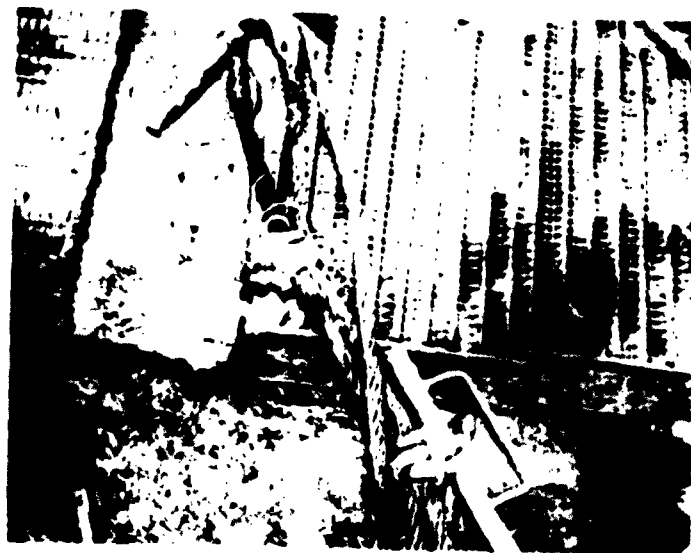


FIGURE 20

(U) EFFECTS OF ONE-FIVE VC GRINADE ON TOP OF N113



FIGURE 21

(U) EFFECTS OF 1-110 WEIGHTING ON TO HATCH ON N113

**LOGISTICAL SUPPORT
REQUIREMENTS**

Incl 2

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LOGISTICAL SUPPORT REQUIREMENTS

1. (C) General

This discussion addresses itself to Objective Number 3 of the test plan which is "to determine the logistical support requirements for units and individual vehicles when operated in a counterinsurgency role in the Republic of Vietnam."

2. (C) Maintenance

a. Aluminum Welding Capability

The major maintenance problem encountered during the reporting period was the lack of an aluminum welding capability. The necessary aluminum welding sets, FSN 3431-837-5574, are available in RVN. An inspection of repair weldments on several vehicles indicates that personnel performing the repair work have not been properly trained. In late 1962 a Mobile Training Team from Korea instructed a group of Vietnamese troops on the use of this equipment. The results indicate that either the instruction was inadequate or that the course attendees are not being properly used.

A critical shortage of argon gas, FSN 6830-290-4291, has compounded this problem. All Corps areas report this shortage. One M114 has been deadlined in excess of 4 months waiting for gas to repair an idler assembly mounting pad. Some M113s in the Delta area (IV Corps) have both cargo hatches broken, which precludes "buttoning-up" during combat operations. Many antenna guards and headlight guards have been completely broken from the vehicle and not replaced because of this argon gas shortage.

This problem was also noted in Thailand during a recent visit by ACTIV observers. The M113 has recently been integrated in the Thai Army. Thus far, no welding sets, trained welders, gas, or welding wire have been sent there to support vehicles.

b. Cap Screws, Road Wheel Arm Support Housing

In several vehicles, some or all of the cap screws (FSN 5306-018-1614) that hold the road wheel arm to the roadwheel arm housing have fallen out (see photo). It is not possible to check these cap screws visually or mechanically without removing the entire road wheel arm assembly because they are located inside a box beam which forms part of the structural frame of the vehicle. When these screws fall out, the only force holding the road wheels to the vehicle is the track weight and tension. Also, when the screws loosen and fall out, lubricant drains out of the screw holes, and serious damage can occur to the bearings and other components of the assembly. A positive locking system, e.g., safety wiring, should be used to prevent this problem.

3. (C) Supply

Six vehicles are deadlined for rectifiers. Thirty-two rectifiers, FSN 6130-877-4853, such as are used on the M114 have been ordered for replacements and stockage. This different rectifier will be used because its diodes can be replaced when they fail (one good rectifier can be made or several failed rectifiers by cannibalizing diodes) whereas the M113 selenium rectifier (FSN 6130-877-4853) is non-repairable if the diode fails. The functional interchangeability of these two rectifiers is compatible.

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VIEW FROM THE AIRPORT SHOWING THE SCENE

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PROJECTED STUDY ITEMS

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PROJECTED STUDY ITEMS

Following is the status of testing of items of M113 equipment evaluated in Vietnam:

1. (C) Capstans and Ground Anchors This self-recovery kit, consisting of sprocket adaptors, capstans, ground anchors, and nylon rope is now available in toto. Ten sets of capstans and adaptors have arrived. Twelve anchors consisting of six 8-inch helix and eye sets and six 10-inch helix and eye sets have arrived. Initial testing was accomplished in the MY THO area during the first week in August. Testing by ARVN Armor units during operations will follow if the R&D testing is successful.

2. (C) 30 Caliber Machine Gun Cupolas

Four enclosed caliber .30 machine gun cupolas have been mounted on the M113 for test in the ARVN. This cupola will afford added protection for the gunner. Two cupolas are mounted on 1st Armored Cavalry Squadron vehicles assigned to III Corps and are located at GO VAP. They have not been employed sufficiently to develop any preliminary information. The remaining two cupolas are mounted on 2nd Armored Cavalry Squadron vehicles and are located at MY THO. They have been employed in two operations to date. Preliminary information from these two operations indicates the following:

a. Both vehicles mounting the cupolas have been employed in the same platoon and form a three vehicle assault unit with a flamethrower equipped M113.

b. The cupola has been easy to operate and has had no mechanical difficulties.

c. The psychological effect upon the ARVN troops using the vehicle has been very good. They rely heavily upon these vehicles in the assault.

d. Both carriers have been hit on the aluminum adapter rings by what are thought to be .45 cal submachine gun rounds. Neither was penetrated. One cupola was hit twice by what was believed to be the same caliber round, but no damage occurred to the cupola.

e. The vehicles mounting cupolas have been driven directly onto enemy positions firing into foxholes as they moved.

f. Loading is fast and simple - the gun is loaded most easily at maximum elevation.

g. Range has been found to be satisfactory.

h. No repair parts or special maintenance tools have been needed thus far.

i. The fire control is satisfactory.

3. (U) Push Bars

The A-frame type "push bar," mentioned in Monthly Test Report Number 5, broke at the welded yoke where the "push pad" is attached (see photo). A new push bar of different material and design will be fabricated at the local Ordnance Rebuild Depot in Saigon. This special recovery device will be aggressively pursued as it provides one of the quickest and easiest methods of effecting canal crossings.

4. (C) Loudspeaker - Amplifier

A loudspeaker - amplifier set has been mounted on the M113. It has

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been attached by an adaptor to the locally fabricated machine gun shield on the traversable cupola. This will allow projection in any desired direction. It is felt that this device can be successfully used for the following:

- a. Attempt to "talk out" insurgent forces.
- b. Control measure for the armored troop commander when employed with dismounted infantry.
- c. Assist in clearing civilians from hamlets and villages in the battle area.

The device is manufactured by Applied Electro Mechanics Inc, Alexandria, Virginia. Equipment designations are: Loudspeaker -- AEM-ST5-1492C; Amplifier -- Audio Amplifier AGM-DE-1492B.

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(U) BROKEN PUSH BAR VOYE

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